

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023755**Date Inspected:** 17-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Pat Swain**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above.

This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

This QA Inspector observed ABF personnel working at the 9 meter level in an effort to weld the external diaphragm plates to the various shear plates and tower skin plates. This QA Inspector observed the following during the shift noted above.

This QA Inspector observed ABF personnel were in the process of setting up the induction preheating equipment at weld joints #53 and #54 at approximately 0730 hours. Weld joints #53 and #54 are at the Southern section between the South and East tower legs.

At approximately 0900 hours ABF personnel were still trying to keep the rain from running down the tower skin plates and entering the area for welding. The area had been enclosed by taping up plastic sheets and metal tape had been placed on the tower skins to divert the water. See photos below.

At approximately 1000 hours preheating was still taking place and the rain appeared to be increasing. This QA Inspector and QC Inspector Pat Swain observed the temperature of the base material appeared to be approximately 125°F by using an electronic temperature gauge.

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At approximately 1030 hours ABF welding Supervisor Danny Ieraci (#3232) stated welding at this location was canceled for the day due to the weather conditions (rain).

This QA Inspector observed ABF welding personnel Jorge Lopez (#6149) had just finished using the carbon arc process to excavate a weld repair and start grinding to remove any carbon deposits. This QA Inspector observed the weld repair was located at 9W/10W-D1. This QA Inspector randomly observed as QC Inspector Jesse Cayabyab performed a visual and Magnetic Particle Testing on the excavation. This QA Inspector performed a visual verification and observed the following; location was Y-0 to 85 (starting at "C" weld) the depth was 17 mm and the width was 30 mm. The work up to this point appeared to comply with the contract requirements. This QA Inspector observed as ABF welding Jorge Lopez (#6149) ran a practice bead on scrape material and QC Inspector Jesse Cayabyab verified the Shielded Metal Arc Welding (SMAW) parameters as follows; 140 amperes using a 3.2 diameter 7018H4R electrode. The parameters appeared to be within the range specified in Welding Procedure Specification (WPS) ABF-WPS-D15-1001 Repair. See photo of excavation below.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted below there were no notable conversations.



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
